

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended): An electrodeposited copper foil, comprising:

a matte side surface, said matte side surface having a surface shape that is smooth with intermittently spaced knob-like projections;

wherein the surface roughness thereof is 2.2 to less than 4 μm , and the copper foil is an untreated copper foil which is not roughening treated,

and said smooth matte side surface having said knob-like projections and said surface roughness of 2.2 to less than 4 μm is a surface of an untreated copper foil for bonding with a resin substrate and is further formed with a nickel plating layer, a zinc plating layer and a chromate treatment layer on that.

2. (Currently Amended): An electrodeposited copper foil as set forth in claim 1, wherein said smooth matte side surface having said knob-like projections and said surface roughness of 2.2 to less than 4 μm is a surface of an untreated copper foil for bonding with a resin substrate and is further roughening treated by running a predetermined current through the foil for a predetermined time in an electroforming bath, ~~and is further formed with said nickel plating layer, said zinc plating layer and said chromate treatment layer on that.~~

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3. (Original): An electrodeposited copper foil as set forth in claim 2, wherein said electroforming bath is an acidic electroforming bath containing at least one of molybdenum, cobalt, nickel, iron, tungsten and arsenic.

4-6. (Cancelled)

7. (Withdrawn - Previously Presented): A method of producing an electrodeposited copper foil comprising electrolysis using an electrolyte containing copper as a main component and a compound having mercapto groups, at least one type of another organic compound, and chloride ions to form a copper foil wherein part of its surface comprises a rough surface having knob-like projections and a surface roughness of 2.2 to less than 4 μm .

8. (Withdrawn): A method of producing an electrodeposited copper foil as set forth in claim 7, wherein an electroforming bath for a roughening treatment is an acidic electroforming bath containing at least one of molybdenum, cobalt, nickel, iron, tungsten and arsenic.

9. (Withdrawn - Previously Presented): A method of producing an electrodeposited copper foil comprising producing an electrodeposited copper foil having a matte side having a surface roughness of 2.2 to less than 4 μm using an electrolyte containing a compound having mercapto groups, at least one type of another organic compound, and chloride ions and

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roughening treating said matte side of said electrodeposited copper foil by running a predetermined current through it for a predetermined time in an electroforming bath.

10. (Previously Presented): An electrodeposited copper foil as set forth in any one of claims 1 to 3, wherein said smooth matte side surface having said knob-like projections is further formed with a coupling agent treatment layer.

11. (Cancelled)

12. (Previously Presented): An electrodeposited copper foil as set forth in claim 1, wherein an electrolyte for producing the copper foil contains sodium 3-mercapto propane sulfonate and hydroxyethylcellulose.

13. (Previously Presented): An electrodeposited copper foil as set forth in claim 1, wherein the untreated copper foil does not have deposited nodules.